

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Lieping Chen et al.

Art Unit: 1614

Serial No.: 10/072,622

Examiner: Unknown

Filed Title

: February 7, 2002 **ICOS MUTANTS**

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Commissioner for Patents Washington, D.C. 20231

JUN 1: 2 2002

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The following correspondence relating to this application is enclosed for filing:

- Information Disclosure Statement (1 page); 1.
- 2. Form PTO-1449 (2 pages);
- 3. Copies of Cited References (19); and
- 4. A Return Postcard.

Please date stamp and mail the enclosed postcard.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 17ag 30

Mark S. Ellinger, Ph.D.

Reg. No. 34,812

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Trisha J. Anderson

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INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449, copies of which are enclosed.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Mark S. Ellinger, Ph.D.

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Substitute Form PTO-1449 U.S. Desertment of Commerce (Modified)

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Information Disclosure Statement

Attorney's Docket No. 07039-331001

Application RECEIVED

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(37 CFR §1.98(b))

			U.S. Paten	t Documents			
Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						

	Foreig	n Patent Doo	uments or Pi	ublished Foreign	Patent A	Application	าร	
Examiner	Desig.	Document	Publication	Country or			Trans	lation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	AB							

	Other D	ocuments (include Author, Title, Date, and Place of Publication)				
Examiner	Desig.					
Initial	ID	Document				
	AC	Bajorath et al., "Molecular modeling of CD28 and three-dimensional analysis of residue conservation in the CD28/CD152 family," <u>Journal of Molecular Graphics and Modelling</u> , 1997, 15(2):135-139				
	AD	Bajorath, "A Molecular Model of Inducible Costimulator Protein and Three-Dimensional Analysis of its Relation to the CD28 Family of T Cell-Specific Costimulatory Receptors," J. Mol. Model., 1999, 5:169-176				
	AE	Boise et al., "CD28 and apoptosis," Curr. Opin. Immunol., 1995, 7:620-625				
	AF	Buonfiglio et al., "The T cell activation molecule H4 and the CD28-like molecule ICOS are identical," Eur. J. Immunol., 2000, 30:3463-3467				
	AG	Chambers and Allison, "Co-stimulation in T cell responses," Curr. Opin. Immunol., 1997, 9:396-404				
	АН	Dong et al., "B7-H1, a third member of the B7 family, co-stimulates T-cell proliferation and interleukin-10 secretion," Nature Medicine, 1999, 5(12):1365-1369				
	AI	Hunkapiller and Hood, "Diversity of the Immunoglobulin Gene Superfamily," Adv. Immunol., 1989, 44:1-63				
	AJ	Hutloff et al., "ICOS is an inducible T-cell co-stimulator structurally and functionally related to CD28," Nature, 1999, 397:263-266				
	AK	Krummel and Allison, "CTLA-4 Engagement Inhibits IL-2 Accumulation and Cell Cycle Progression upon Activation of Resting T Cells," J. Exp. Med., 1996, 183:2533-2540				
	AL	Lenschow et al., "CD28/B7 System of T Cell Costimulation," Annu. Rev. Immunol., 1996, 14:233-258				
	AM	Linsley and Ledbetter, "The Role of the CD28 Receptor During T Cell Responses to Antigen," Annu. Rev. Immunol., 1993, 11:191-212				
	AN	Lucia et al., "Expression of the Novel T Cell Activation Molecule hpH4 in HIV-Infected Patients: Correlation with Disease Status," Aids Research and Human Retroviruses, 2000, 16(6):549-557				
	AO	Metzler et al., "Solution structure of human CTLA-4 and delineation of a CD80/CD86 binding site conserved in CD28," Nature Structural Biology, 1997, 4(7):527-531				
	AP	Peach et al., "Complementarity Determining Region 1 (CDR1)- and CDR3-analogous Regions in CTLA-4 and CD28 Determine the Binding to B7-1," J. Exp. Med., 1994, 180:2049-2058				
	Rathmell and Thompson, "The Central Effectors of Cell Death in the Immune System," Annu. Rev. Immunol., 1999, 17:781-828					

Examiner Signature	Date Considered
EYAMINED: Initials citation considered Draw line through citation if no	t in conformance and not considered. Include conv of this form with

next communication to applicant.

Substitute Disclosure Form (PTO-1449)

Sheet $\underline{2}$ of $\underline{2}$

Substitute Form PTO-1449 (Modified)

U.S. Department of Commerce Patent and Trademark Office Information Disclosure Statement

Application Ne Attorney's Docket No. 10/072,622 07039-331001

by Applicant

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Applicant Lieping Chen et al.

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(Use several sheets if necessary)

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(37 CFR §1.98(b))

Other Documents (include Author, Title, Date, and Place of Publication)					
Examiner	Desig.				
Initial	l ID	Document			
	AR	Walunas et al., "CTLA-4 Ligation Blocks CD28-dependent T Cell Activation," J. Exp. Med., 1996, 183:2541-2550			
	AS	Wang et al., "Costimulation of T cells by B7-H2, a B7-like molecule that binds ICOS," <u>Blood</u> , 2000, 96(8):2808-2813			
	AT	Yoshinaga et al., "T-cell co-stimulation through B7RP-1 and ICOS," Nature, 1999, 402:827-832			
	AU	Yoshinaga et al., "Characterization of a new human B7-related protein: B7RP-1 is the ligand to the co-stimulatory protein ICOS," <u>International Immunology</u> , 2000, 12(10):1439-1447			

Examiner Signature

Date Considered